



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/080,862	02/22/2002	Jyrki Ignatius	0365-0530P	9773

2292 7590 06/15/2004

BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

JOHNSON, JERRY D

ART UNIT	PAPER NUMBER
----------	--------------

1764

DATE MAILED: 06/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/080,862

Applicant(s)

IGNATIUS ET AL.

Examiner

Jerry D. Johnson

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scott et al. in view of Trotta et al. and WO 01/60955 A1.

Scott et al., Patent Application Publication US 2002/0014035 A1, teach a method for blending unleaded gasoline containing ethanol, and having a Reid Vapor Pressure of 8.0 psi or less, and more preferably 7.0 psi or less [paragraph 0015]. There is less than 0.1 wt. %, more preferably less than 0.05 wt. %, and most preferably less than 0.01 wt. % of ether compounds in the blended gasoline [paragraph 0071]. The gasoline can be blended to achieve any octane rating desired. A regular gasoline with an octane rating of at least 87, a mid-grade gasoline with an octane rating of at least 89 or 90 or a premium gasoline with an octane rating of at least 91 can also be prepared [paragraph 0074]. In Table 4, pages 6-8 of Scott et al., fuel compositions having the aromatic content and distillation properties of the instant claims are disclosed. While Scott et al. teach that the composition has an olefin content, Scott et al. differ from the instant claims in not teaching that the amount of light olefins should be less than 6 vol. % or teaching/disclosing the amount of trimethylpentenes, trimethylhexenes and trimethylheptenes.

Trotta et al., U.S. Patent 6,241,791, teach that with respect to gasoline the content of olefins (mainly light olefins) should be reduced (column 1, lines 21-25) and that the use of high-octane hydrocarbon components deriving from the selective oligomerization of isobutene, has a synergic effect with that of some low-boiling and high-octane components, such as for example, ethanol (column 6, lines 47-52). Trotta et al. teach gasoline having a RON octane number equal to or higher than 90 and a MON octane number equal to or higher than 80 containing a typical

Art Unit: 1764

gasoline cut, having a boiling point ranging from 30 to 220°C, one or more compounds deriving from the selective oligomerization of isobutene, which may optionally have been at least partially hydrogenated, in a quantity ranging from 0.5 to 20% by weight, preferably from 5 to 18%, wherein the dimmers of isobutene and possible co-dimers of isobutene with n-butenes are a in a quantity of at least 80% by weight, preferably at least 85%, more preferably at least 90%, and optionally ethanol in a quantity ranging from 0 to 10% by weight, preferably from 0.5 to 6% (column 6, line 57 to column 7, line 6).

WO 01/60955 A1 (hereafter WO '955) teaches fuel compositions comprising a base fuel having a final boiling point greater than 150°C and an anti-foam, characterized in that the anti-foam comprising di-isobutylene in an amount greater than 2.5% by volume based on the total fuel composition (page 2, lines 9-12).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to add a dimer of isobutene as taught by Trotta et al. and WO '955 to a fuel composition as taught by Scott et al. in order to improve the anti-foam (WO '955) or octane properties (Trotta et al.) properties of the fuel composition.

Claim 10 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Applicant's arguments filed March 29, 2004 have been fully considered but they are not persuasive.

Applicants argue

Art Unit: 1764

Trotta does not disclose or suggest the essential feature of the invention, namely the limitation that a maximum concentration of light olefins be used in combination with at least a minimum concentration of heavy olefins results in low emission rates and the reduction of fuel consumption. There is simply no recognition in the Trotta reference that the content of light olefins should be maintained at less than 6% by volume or that the overall concentration of the olefins should be between 7 to 40% volume to achieve these properties. (Remarks, page 6).

Applicants argument lacks merit.

Initially it is noted that the instant claims do not require the presence of any light olefins.

Trotta et al., U.S. Patent 6,241,791, teach that with respect to gasoline the content of olefins (mainly light olefins) should be reduced (column 1, lines 21-25). and that the use of high-octane hydrocarbon components deriving from the selective oligomerization of isobutene, has a synergic effect with that of some low-boiling and high-octane components, such as for example, ethanol (column 6, lines 47-52). Trotta et al. teach gasoline compositions containing one or more compounds deriving from the selective oligomerization of isobutene, which may optionally have been at least partially hydrogenated, in a quantity ranging from 0.5 to 20% by weight, preferably from 5 to 18%, wherein the dimmers of isobutene and possible co-dimers of isobutene with n-butenes are a in a quantity of at least 80% by weight, preferably at least 85%, more preferably at least 90%. Accordingly, it would have been obvious to one having ordinary skill in the art to follow these teachings and arrive at a composition having the claimed ratio of light olefins.

Further, in this regard, it is well settled that “[w]hen an applicant seeks to overcome a *prima facie* case of obviousness by showing improved performance in a range that is within or overlaps with a range disclosed in the prior art, the applicant must ‘show that the [claimed] range is critical, generally by showing that the claimed range achieves unexpected results relative to

Art Unit: 1764

the prior art range.’” *In re Geisler*, 116 F.3d 1465, 1469, 43 USPQ2d 1362, 1365 (Fed. Cir. 1997) (quoting *In re Woodruff*, 919 F.2d 1575, 1578, 16 USPQ2d 1934, 1936 (Fed. Cir. 1990)).

There is no evidence of record that the claimed olefin ranges are critical.

Applicants argue

[i]t should be emphasized that the present invention is designed to provide a gasoline fuel composition that does not include MTBE, not to provide a composition having improved anti-foaming or octane properties as suggested by the examiner. (Remarks, page 7).

Applicants’ argument lacks merit.

As long as some motivation or suggestion to combine the reference is provided by the prior art taken as a whole, the law does not require that the references be combined for the reasons contemplated by the inventor. *In re Kronig*, 539 F.2d 1300, 1304, 190 USPQ 425, 427-28 (CCPA 1976); *In re Lintner*, 458 F.2d 1013, 1016, 173 USPQ 560, 562 (CCPA 1972). In any event, Scott et al. and Trotta et al. are also directed to providing a gasoline fuel composition that does not include MTBE.

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 1764

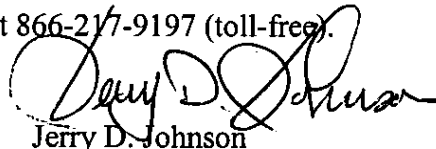
however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry D. Johnson whose telephone number is (571) 272-1448.

The examiner can normally be reached on 6:00-3:30, M-F, alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Caldarola can be reached on (571) 272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jerry D. Johnson
Primary Examiner
Art Unit 1764